

WHAT IS CLAIMED IS:

1. A method for performing call setup by a mobile station in a mobile communication system having a base station for serving the mobile station , and a
5 mobile switching center for controlling the base station, the method comprising the steps of:

transmitting to the base station an origination message that does not contain a recipient's phone number;

upon receiving a channel assignment message from the base station, setting up
10 wireless channels to the base station according to assignment information included in the channel assignment message; and

upon completion of entry of the recipient's phone number, transmitting to the base station an origination continuation message containing the recipient's phone number.

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2. The method of claim 1, wherein the step of setting up wireless channels comprises the steps of:

assigning a forward traffic channel and a reverse traffic channel corresponding thereto according to the assignment information, and transmitting a
20 preamble over the assigned reverse traffic channel; and

exchanging acknowledgement (Ack) orders with the base station and performing service negotiation with the base station.

3. The method of claim 1, wherein the origination message included a
25 dummy phone number consisting of all '0s'.

4. A method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base
30 station, the method comprising the steps of:

upon receiving an origination message that does not contain a recipient's phone number from the mobile station, assigning to the mobile station wireless resources and transmitting to the mobile station a channel assignment message containing the assignment information;

5 after transmitting the channel assignment message, assigning wireless channels to the mobile station;

after completion of the assignment of the wireless channels, transmitting to the mobile switching center a service request message if an origination continuation message containing a recipient's phone number is received from the mobile station;

10 and

upon receiving an assignment request message from the mobile switching center, transmitting an assignment complete message to the mobile switching center.

5. The method of claim 4, further comprising the steps of:

15 upon receiving the assignment request message from the mobile switching center, determining whether assignment of the wireless channels is completed; and
transmitting the assignment complete message to the mobile switching center if assignment of the wireless channels is completed.

20 6. A method for performing call setup by a base station upon a call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base station, the method comprising the steps of:

upon receiving an origination message from the mobile station, transmitting to
25 the mobile switching center a service request message, simultaneously assigning wireless resources to the mobile station, and transmitting a channel assignment message containing the assignment information to the mobile station;

assigning wireless channels to the mobile station; and

transmitting an assignment complete message to the mobile switching center
30 if an assignment request message is received from the mobile switching center.

7. The method of claim 6, the assignment request message from the mobile switching center is received after a service request message is transmitted.

5 8. The method of claim 6, further comprising the steps of:
upon receiving the assignment request message from the mobile switching center, determining by the base station whether assignment of the wireless channels is completed; and
transmitting the assignment complete message to the mobile switching center
10 if assignment of the wireless channels is completed.

9. A method for performing call setup by a base station upon call attempt by a mobile station in a mobile communication system having the base station for serving the mobile station, and a mobile switching center for controlling the base
15 station, the method comprising the steps of:

upon receiving an origination message that does not contain a recipient's phone number from the mobile station, transmitting a service request message to the mobile switching center, simultaneously assigning wireless resources to the mobile station, and transmitting a channel assignment message including the assignment
20 information to the mobile station;

after transmitting the channel assignment message, assigning wireless channels to the mobile station;

after assignment of the wireless channels, transmitting to the mobile switching center a recipient's phone number if an origination continuation message is received
25 from the mobile station; and

after assignment of the wireless channels, if an assignment request message is received from the mobile switching center in response to a service request message, transmitting to the mobile switching center an assignment complete message.

30 10. A mobile station apparatus for performing call setup in a mobile

communication system, comprising:

a key input unit for generating a key signal corresponding to a key input by a user;

5 a radio frequency (RF) unit for up-converting a signal to be transmitted to a base station into an RF signal, and down-converting an RF signal received from the base station into a baseband signal;

a modem for encoding and modulating data or a message to be transmitted to the base station, providing the modulated data or message to the RF unit, and demodulating and decoding the baseband signal received from the RF unit; and

10 a controller for generating an origination message that does not containing a recipient's phone number and providing the origination message to the modem when a dial signal is received from the key input unit, controlling the RF unit to set up wireless channels and performing service negotiation upon receiving a channel assignment message, and generating an origination continuation message containing
15 the recipient's phone number and providing the origination continuation message to the modem when a key input complete signal is received from the key input unit.

11. The method of claim 10, wherein the origination message included a dummy phone number consisting of all '0s'.

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